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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,548	07/02/2003	Thomas J. Lynch	01-233 (80454)	4986

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EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/611,548	Applicant(s) LYNCH, THOMAS J.	
	Examiner Margaret G. Moore	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 to 27 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 2, 14, 16 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, such a qualitative limitation renders this claim subjective and as such indefinite. Specifically the differences between each assessment, i.e. between dense and medium dense, between few and medium, etc., is not clear and as such the metes and bounds of this claim are not clear. Note also column 16 of 6,417,292, which indicates that a "6" is considered to be slight blistering according to ASTM 714. Since "slight blistering" in the prior art is given the same assessment as "medium blistering" in the instant claims, it is apparent that no uniform standard can be applied to this test.

In claims 14 and 21, it is unclear what is embraced by the term coalescing agent. The Examiner cannot find an explanation of this term in the specification.

In claim 16, it is unclear what constitutes the pigment volume concentration or the critical pigment volume concentration.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4 to 6, 8, 10, 11, 14, 17 18, 21, 23 and 25 to 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al.

Hara et al. teach an apparatus that contains a plastic material for forming a base.

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See Example 3 in which a curable polyimide is admixed with barium sulfate having a particle size of .4 microns and having been surface treated with an aminosilane. This meets the limitations of claims 1, 4 to 6 and 11. Note that the dry film is prepared from a thermoset resin and falls within the thickness of claim 17. With regards to claims 8 and 10, since the pigment can be completely formed from the barium sulfate, this limitation is also met by Example 3. Note too that this film is formed on a steel surface meeting the requirement of claim 26.

5. Claims 7, 15, 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al.

Hara et al. do not specifically teach the weight percent of silane on the coated barium sulfate. However column 5, lines 30 to 35, teaches that the silane is added to improve the compatibility of the filler with the resin. Adjusting the amount of silane in an effort to optimize the compatibility of the filler with the resin would have been well within the skill of the ordinary artisan, thereby rendering obvious the claimed amount. Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Regarding claims 15 and 22, note that column 5, line 9, teaches a thermoplastic resin that can be used in the alternative with the thermosetting polyimide shown in the example. One having ordinary skill in the art would have been motivated by this teaching to use a thermoplastic polyethersulfon in place of the polyimide in Example 3, with a reasonable expectation of success, thereby rendering these claims obvious. Similarly it would have been obvious to include a curing agent for the resins, in an effort to improve and expedite cure, thereby rendering obvious claim 20. Finally, with regards to claim 24, note that applying subsequent coats, in an effort to build up the thickness of the coating or adjust the surface of the coating, would have been well within routine experimentation and/or optimization for one having ordinary skill in the art.

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6. Claims 1 and 4 to 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fetscher et al.

Fetscher et al. teach encapsulant compositions in which the filler is surface treated with a silane compound having either an amino or epoxy functional group. The silane can be precoated onto the filler. See column 2, lines 5 to 30. Note Example I, in which quartz is surface treated with an aminosilane prior. Note also Example II which contains both a barium sulfate filler and an aminosilane. In this example, however, the filler is not initially surface treated. However, Fetscher et al. clearly provide motivation for one having ordinary skill in the art to use an aminosilane precoated barium sulfate filler in Example 2 in place of the barium sulfate and aminosilane being added separately. This motivation comes from the fact that column 2 teaches that the aminosilane can be added to the composition in either way as an equivalent alternative, and from the fact that they clearly demonstrate other fillers being surface treated prior to addition.

The aminosilane in Fetscher et al. meets the limitations of claims 5 and 6 and column 2 teaches surface treatment in an amount meeting claim 7. Adjusting particle size of the barium sulfate filler would have been well within routine experimentation for one having ordinary skill in the art, in an effort to optimize and/or adjust properties. In this manner claim 4 is rendered obvious. The epoxy resin composition in Fetscher et al. meets the limitations of claims 11 to 15. With regards to claims 8 and 9, note column 4 which teaches adding the fillers together with coloring agents. Finally, with regards to claim 17, adjusting the thickness of the coating in Fetscher et al. would have been well within routine experimentation for one having ordinary skill in the art, thereby rendering the claimed thickness obvious.

7. Claims 2 and 3 are neither taught nor suggested by the prior art. Claim 2 has been rejected as being indefinite, *supra*. Claim 3, however, would be allowable if amended to include the limitations of claim 1, i.e. made into an independent claim. The prior art is silent as to reducing the viscosity of the coating composition by adding barium sulfate surface treated with an aminosilane. There is no suggestion of such a limitation, nor is there anything that indicates that such a limitation would be inherently

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present in any of the prior art compositions. Shinozuka et al. is cited as being of general interest, as being drawn to surface treated barium sulfate which can be treated with an aminosilane. Moriwaki teaches a thermoplastic composition in which suggests the presence of a barium sulfate filler that can desirably be surface treated with an aminosilane. Neither reference, however, is as close or closer to the instant claims than that cited supra.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
4/16/04